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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**Docket Number (Optional)  
04-870

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on \_\_\_\_\_

Signature \_\_\_\_\_

Typed or printed  
name \_\_\_\_\_Application Number  
10/511,766Filed  
10/19/2004First Named Inventor  
Bridges, Peter C.Art Unit  
3771Examiner  
Ostrup

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

/A. Blair Hughes/

Signature

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

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Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

June 9, 2009

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
Submit multiple forms if more than one signature is required, see below\*.☐

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
(Case No. 04-870)

In the Application of:	)	
	)	
Peter Clives Bridges, et al.	)	Examiner: C.T. Ostrup
	)	
Serial No. 10/511,766	)	
	)	Group Art Unit: 3771
Filed: October 19, 2004	)	
	)	Conf. No. 6029
Title: Respirator Assembly	)	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**PRE-APPEAL BRIEF**

Pre-appeal brief review is requested for the above-identified patent application.

**I. BACKGROUND**

Claims 1-7 are pending in the application. Claims 1-7 stand finally rejected for obviousness over Quilter et al. (Quilter) (USP 2,861,568) in view of Tischer et al. (USP 6,328,031). The examiner has also objected to the specification for lacking antecedent basis for the claim term “seal adapted to seal against the periphery of the user’s face when worn”.

**II. THE SPECIFICATION OBJECTION**

The examiner objected to the application specification because it does not include antecedent basis for the claims term “seal adapted to seal against the periphery of the user’s face when worn”. The examiner cites to 37 CFR 1.75(d)(1) and MPEP §608.01(o) in support of this objection.

37 CFR 1.75(d)(1) requires “the terms and phrases used the in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.”. The examiner’s rejection is traversed because the specification includes “clear support” – as required - for the claimed feature. The Applicant agrees that the specification does not use the precise word “seal” alone in reference to the first

sub-assembly feature “seal adapted to seal against the periphery of the users face”. However, the specification includes at least the following excerpts that discuss the feature in a manner that makes the term ascertainable:

- A first sub-assembly adapted to be worn on the head and including sealing means adapted to form a seal around the periphery of the user's face when worn . . (Page 2, lines 12-14).
- In a preferred embodiment the first sub-assembly comprises headgear including a substantially rigid ring structure adapted to be juxtaposed to the user's face when the headgear is donned and from which said sealing means extend to engage around the periphery of the user's face. . . . (Page 3, lines 1-4).
- In operation the user can don the sub-assembly 1 as shown in FIGS. 1 and 3, prior to a mission, and take the time to ensure that the gasket 6 is properly and comfortably sealed against his face before there is any risk of exposure to the hazard. (Page 4, lines 6-8).
- In the fully assembled condition of the respirator shown in FIG. 4 a facial cavity 13 is formed, bounded by the face plate 7 and gasket 6, in which the user's nose, mouth and eyes are isolated from the external environment. The integrity of the peripheral face seal formed by the gasket 6 is crucial in this respect, and can be ensured by the careful donning of the sub-assembly 1 prior to a mission. (Page 4, lines 24-29).
- At the same time, by making the gasket 6 part of the sub-assembly 1 which can be donned at leisure, the integrity of the face seal can be more reliably ensured than in those assemblies where a face seal is applied only when a threat is encountered and likely in haste. (Page 5, lines 13-15).

It is clear from a reading of the specification and Figures as a whole that claimed first sub-assembly seal adapted to seal against the periphery of the users face is the same as the sealing means and gasket 6 discussed in the specification. The examiner's specification objection is, therefore, unfounded because the specification includes “clear support” that makes the claim term ascertainable.

### **III. THE OBVIOUSNESS REJECTION TRAVERSE**

The examiner finally rejected all pending claims 1-7 for obviousness. The examiner's rejection is traversed on grounds that the examiner's motivation for combining the references is technically faulty and because the references are from very different fields of endeavor and one

of ordinary skill in the art would not have considered combining the references at the time of the invention.

**A. The References Teach Away From Their Combination**

The Applicant renews the position that claims 1-7 are non-obvious and patentable because one of ordinary skill in the art would not have combined the references as the examiner has. Indeed, the references teach away from their combination. The examiner takes the position that Quilter discloses a first sub-assembly (the outer skin or cover 15) and a second sub-assembly (the window 26 and mouthpiece or breathing mask 64, which are both comprised in the frontal mask 25). The examiner does not identify why these particular elements of the overall helmet structure are to be regarded as individual sub-assemblies although this is assumed to be based on column 2, lines 64-67 of the reference where it is stated that “the molded mask 25 and the sheet-rubber cover 15 may be formed separately and joined together by vulcanization or otherwise, as the judgement of the manufacturer may dictate”.

The Examiner correctly recognises that Quilter fails to disclose that the mask 25 is separable from but selectively co-operable with the cover 15 as required for the two sub-assemblies in claim 1 of the application. It is also correct that Tischer discloses a structure in which a hood and face mask are detachably connected to each other. It does not however follow, as alleged by the Examiner, that it would be obvious to one of ordinary skill in the art to modify the helmet of Quilter to make the two identified subassemblies separable and selectively co-operable as claimed.

In this respect one of ordinary skill in the art would not combine the references in the manner suggested, or at all to reach the claimed invention. Indeed, the purposes of the Tischer and Quilter devices are quite different. It is an aim of Tischer to provide a fire fighting hood and face mask assembly which simplifies and speeds the donning of the hood and mask and which reduces the risk of injury to the firefighter while permitting the hood to be quickly and easily detached from the face mask to facilitate cleaning and/or replacement of the hood (Tischer et al column 2, lines 6-12). Moreover a high heat environment is not a concern at all of Quilter. Instead Quilter seeks to provide an improved oxygen-fed pressurized helmet for aviators at high altitudes, which is constructed mainly of flexible material but dispenses with a compensatory or “pressure-drop” valve, and prevents the accumulation of carbon dioxide in the interior of the helmet (Quilter et al column 1, lines 53-61). It is not the intention of Quilter that the helmet

should ever be worn without the frontal mask 25, and indeed while Quilter discloses that the mask 25 and cover 15 may be formed separately, the reference explicitly requires the components to be permanently joined, as by vulcanization. It would therefore be entirely contrary to the teaching of Quilter (1) to modify the structure to make these components separable; and (2) to modify the structure in any way due to high heat environment concerns. Indeed, one skilled in the art at the time of the invention would understand that the best way for a wearer of the Quilter device to prevent exposure of one's head to a high heat environment would be to keep the entire Quilter device on. Hence claims 1-7 are not obvious and are patentable because a skilled person at the time of the invention would not have combined the references as the examiner has to make Quilter a two separable sub-assembly device.

**B. The Motivation For Combining References Is Technically Flawed**

The Applicant took the position in its February 26, 2008 Office Action Reply that claims 1-7 are non-obvious and patentable because the examiner's motivation for combining the references is faulty. The examiner rebutted Applicant's position in the Final Rejection by arguing (1) that the test for combining references is what the combined teachings of the references would have suggested to one of ordinary skill in the art; and (2) that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Quilter device in order to make the subassemblies separable for the purpose of preventing direct exposure of the wearer's head to a high heat environment as taught by Tischer et al. The obviousness rejection continues to be without merit because the examiner's grounds for combining the various elements of the prior art reference is based upon a misinterpretation of the cited Tischer et al. teaching.

The examiner cites to column 2, lines 35-40 of Tischer et al. for suggesting a reason (and the only reason cited by the examiner) why one of ordinary skill in the art at the time of the invention would have combined the teachings of Quilter and Tischer et al. to reach the claimed invention, i.e., to make the subassemblies separable for the purposes of preventing direct exposure of the wearer's head to high heat environment "as taught by Tischer". However, the cited portion of Tischer et al. suggests no such thing. Instead, what the cited passage of Tischer et al. actually says is:

“The hood is detachably connected [to the] face mask so as to secure the annular edge of the hood in the annular recess of the face mask and thereby prevent direct exposure of the individual’s head to the high heat environment associated with a firefighting site.”

In other words the cited portion of Tischer et al. is a teaching that when the (detachable) hood and face mask are connected, the joint which is made between them (by the annular edge of the hood and the annular recess of the face mask) must be such as to prevent direct exposure of the individual’s head to the high heat environment (i.e. must leave no gaps through which the heat from outside may pass). The cited portion of Tischer et al. is not a teaching or suggestion – as the examiner believes - for making the sub-assemblies separable. It is instead a teaching that in use to protect the firefighter there must be a sealed connection between the sub-assemblies to exclude the hot environment. In Quilter the respective parts are already permanently sealed together during manufacture e.g. by vulcanisation (column 2, lines 63-67 of Quilter et al). So the cited teaching of Tischer et al. would suggest that the Quilter et al. helmet should not be modified at all because it is already sealed. The examiner’s obviousness rejection cannot be sustained for this reason and claims 1-7 must be allowed.

### CONCLUSION

Claims 1-7 are pending in the application and are believed to be patentable for at least the reasons identified above. Favorable consideration and allowance of all pending application claims is courteously solicited.

Date: June 9, 2009, 2009

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